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# **CLAIMS**

1. Game processing apparatus comprising:

means for indicating successive target actions to be executed by a user, each target action having an associated target time of execution; and

scoring logic in which detected user actions are compared with the target actions, the scoring logic comprising:

an input arrangement by which user actions may be detected;

means for comparing a detected sequence of user actions with a sequence of target actions; and

means for detecting a timing offset between the sequence of user actions and a corresponding sequence of target actions;

in which, for the comparison of subsequent user actions with respective target actions, the apparatus is arranged to apply the timing offset as a relative displacement between the detected user actions and the target times.

 Apparatus according to claim 1, in which the user actions involve the generation, by a user, of musical notes.

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Apparatus according to claim 2, in which:
 the target actions indicate a required musical note;
 the user actions involve the user singing a musical note; and
 the input arrangement comprises a microphone.

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- 4. Apparatus according to claim 3, in which the scoring logic is operable to detect that a user has successfully carried out a target action if a musical note generated by the user is within a tolerance amount of the corresponding target musical note.
- 30 5. Apparatus according to claim 4, in which: the target actions indicate a required word to be sung; the user actions involve singing the required word; and the scoring logic is operable to vary the tolerance amount in dependence on the required word.

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6. Apparatus according to claim 5, in which the scoring logic is operable not to carry out a comparison between a user action and a target action where the target action represents one of a predefined set of words.

- Apparatus according to any one of claims 2 to 6, in which the scoring logic is arranged to detect a difference in tone between a target musical note and the octave-multiple of a user-generated musical note which is closest in tone to the target musical note.
- 8. Apparatus according to any one of the preceding claims, in which the target actions are arranged as successive groups of target actions, the groups being separated by pauses in which no user action is expected.
- Apparatus according to claim 8, in which the scoring logic is arranged to detect
   the timing offset after each pause.
  - 10. Apparatus according to any one of the preceding claims, in which the sequence of user actions is an initial sequence of user actions.
- 20 11. Apparatus according to any one of the preceding claims, in which the scoring logic is arranged to detect the correlation between the sequence of user actions and the sequence of target actions at two or more possible values of the timing offset, and to set the timing offset to be that one of the possible values for which the detected correlation is greatest.

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- 12. Apparatus according to claim 11, in which the scoring logic is operable to set the timing offset to zero if there is less than a predetermined correlation between the sequence of user actions and the sequence of target actions.
- 30 13. Apparatus according to any one of the preceding claims, in which the target times of execution define start times in respect of the associated target actions.
  - 14. Apparatus according to any one of the preceding claims, in which the target times of execution define durations in respect of the associated target actions.

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15. A method of game processing in which user actions are compared with target actions, the method comprising:

indicating successive target actions to be executed by a user, each target action having an associated target time of execution;

detecting user actions;

comparing a detected sequence of user actions with a sequence of target actions;

detecting a timing offset between the sequence of user actions and a corresponding sequence of target actions;

- in which the comparison of subsequent user actions with respective target actions is arranged to apply the timing offset as a relative displacement between the detected user actions and the target times.
- 16. Computer software having program code for carrying out a method according to claim 15.
  - 17. A medium by which computer software according to claim 16 is provided.
  - 18. A medium according to claim 17, the medium being a transmission medium.
  - 19. A medium according to claim 17, the medium being a storage medium.